

## II. REMARKS

1. Claims 1-18 remain in the application.
2. Claims 12 and 15 are definite and meet the requirements of the second paragraph of 35 USC 112.

Claim 12 is directed to a method of communication between a network element and a mobile terminal in a communication network. The method recites, among other things, exchanging a plurality of data units between the network element and the mobile terminal, wherein at least one data unit includes a status bit indicating that flow control in data terminal equipment used to transmit the data unit is active or inactive.

Claim 15 is directed to a communication network, including a mobile terminal, a network element for exchanging a plurality of data units with the mobile terminal, and circuitry for providing at least one data unit that includes a status bit indicating that flow control in data terminal equipment used to transmit the data unit is active or inactive.

The Office Action states that there is insufficient antecedent basis for the phrase "in data terminal equipment." The Office Action also states that claims 12 and 15 recite a network element and a mobile terminal and then later recite "flow control in data terminal equipment." The Office Action goes on to state that it is not clear what equipment is being referred to by the expression "in data terminal equipment."

Figure 4 of the specification shows the functional elements of a data transfer process in a GSM system, including the data terminal equipment shown as a block designated "DTE." Page 8,

line 26 through page 9, line 5, also describes how flow control is implemented in the data terminal equipment and further describes a flow control indication that signifies when flow control in the data terminal equipment is active or not.

Clearly, the equipment referred to by "in data terminal equipment" is what the phrase states: data terminal equipment.

A claim is not *per se* indefinite if the body of the claim recites additional elements which do not appear in the preamble.

The mere fact that the body of a claim recites additional elements which do not appear in the claim's preamble does not render the claim indefinite under 35 USC 112, second paragraph. The claim at issue apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 USC 112, paragraph 2. (MPEP 2173.05(e) referring to *In re Larsen*, No. 01-1092 (Fed. Cir. May 9, 2001, unpublished)).

The test for definiteness under 35 U.S.C. 112, second paragraph is whether "those skilled in the art would understand what is claimed when the claim is read in light of the specification." MPEP 2173.02 quoting *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, (Fed. Cir. 1986)

Page 8, lines 4-8 of the present specification describes how data from data terminal equipment is processed by a relay function. As mentioned above, Figure 4 shows the functional elements of a data transfer process in a GSM system, including the data terminal equipment shown as a block designated "DTE." Page 8, line 26 through page 9, line 5, also describes how flow control is implemented in the data terminal equipment and further describes a flow control indication that signifies when flow control in the data terminal equipment is active or not.

The *Telecommunications Dictionary* available on line from Outside Plant Software at <http://www.outsideplantsoftware.com/telecommunications-glossary-a.asp> defines "Data Terminal Equipment (DTE)" as: Any device that can send data, receive data or perform both functions.

*Newton's Telecom Dictionary*, (CMP Books, 18<sup>th</sup> edition, 2002) defines "Data Terminal Equipment" as: A terminal device in the data world. DTE is part of a larger grouping of equipment known as CPE (customer premises equipment), which includes voice, as well as data, terminals. At the terminal end of a data transmission, DTE comprises the transmit and receive equipment.

Thus, it is clear that the phrase "data terminal equipment" has sufficient antecedent basis in the claims. The phrase "data terminal equipment" does not have to appear in the preamble of the claim. It is also clear that one skilled in the art would easily understand what is being claimed when the claim is read in light of the specification, especially given the definitions of the term found in reference materials readily known to those skilled in the art. Still further, it clear that the elements of the claim are adequately supported by the specification.

At least for these reasons, Applicants respectfully submit that claims 12 and 15 are definite and particularly point out and distinctly claim the subject matter of the present invention.

3. Claims 12, 15, and 17 are not anticipated by Snowden et al. (US 5,974,032, hereinafter "Snowden").

Snowden fails to disclose or suggest exchanging a plurality of data units between the network element and the mobile terminal, wherein at least one data unit includes a status bit that

indicates whether flow control in transmitting data terminal equipment is active or inactive, as recited by claim 12.

Snowden also fails to disclose or suggest requesting a change in a data rate used to exchange the plurality of data units, also recited by claim 12.

Snowden has no disclosure related to flow control. Snowden describes a bit rate indicator that "indicates which of two bit rates is used in the remainder of the time slot" (column 9, lines 37-39). This is unrelated to flow control as described in the present application, for example, on page 8, line 26 through page 9, line 5.

Snowden also fails to disclose or suggest requesting a change in a data rate used to exchange the plurality of data units. Snowden uses the bit rate indicator to indicate the data rate of the remaining information and the interleaving mode. This is simply an indication of characteristics and is clearly not a request to change a data rate. There is no disclosure in Snowden concerning analyzing using any part of a data unit and requesting a data rate change.

The Office Action states that Snowden discloses that at least one data unit includes a bit rate indicator 460 (status bit) which is analyzed by the call receivers 2 (mobile terminal) to determine a change or adjustment in the data rate used to exchange the data units, and refers to column 9, lines 24-67.

Applicants respectfully disagree. A careful reading of column 9 of Snowden finds no disclosure related to flow control, and no disclosure related requesting a change in a data rate used to exchange the plurality of data units.

At least for these reasons, Applicants submit that claim 12 is patentable over Snowden.

Claim 15 is directed to similar subject matter and therefore is also patentable over Snowden. Claim 17 depends from claim 15 and is patentable because of its dependency.

4. Claims 1-4, 6, and 8-11 are patentable over the combination of Suzuki (US 6,044,067) and Räsänen (US 5,966,374).

The combination of Suzuki and Räsänen fails to disclose or suggest detecting a need for bearer modification from received status indications in at least two consecutive data units.

Claim 1 of the present invention calls for communicating data that is divided into data units. Each data unit includes a status data element that comprises a status indication from a mobile network element to a mobile terminal. The mobile terminal includes a detecting means that detects a need for bearer modification from status indications in at least two of the data units that are consecutive.

The Office Action states that in Suzuki, the mobile station measures a power signal from a base station and determines if there is a need for changing the transmission rate, and refers to column 17, lines 45-60. The Office Action further states that two time slots are used as claimed and refers to column 4, lines 50, 51, and 63.

Applicants respectfully suggest that these statements do not apply to the present application. Column 17, lines 3-5 and 45-49 refer to measuring power from an adjacent base station B of a neighboring cell, determining the interference power of base station B, and transmitting the results to a base station A to

reduce the transmission rate under the control of base station A. The transmission rate is modified on the basis of the induced interference power. This is clearly not the same as detecting a need for bearer modification from status indications in at least two consecutive data units.

Contrary to the statement in the Office Action, column 4, lines 50, 51, and 63 does not disclose two consecutive data units as claimed in the present invention. This section of Suzuki discloses that additional successive time slots are used to compensate for lowering the transmission rate. By increasing the number of time slots and lowering the bit rate within each time slot, the effective transmission rate may be maintained. There is no mention of using consecutive time slots for status indications. Suzuki's use of successive time slots is clearly unrelated to detecting status indicators in two consecutive data units.

Applicants respectfully submit that Räsänen also fails to disclose or suggest these features. Räsänen appears to be unrelated to the present invention because, as stated in the Office Action on page 5, paragraph 4, Räsänen is directed to the duplication of status elements in two consecutive frames. This is in contrast to the present invention where the status bits are part of the standardized packet construction (see page 8, line 21 through page 9, line 5).

At least for these reasons, Applicants respectfully submit that the combination of Suzuki and Räsänen does not render claim 1 unpatentable.

Claim 11 is directed to subject matter similar to claim 1 and is therefore is also patentable over the combination of Suzuki and

Räsänen. Claims 2-4, 6, and 8-10 depend from claim 1 and are patentable over the cited combination because ~~of~~ their dependency.

5. Claims 5 and 7 are patentable over the combination of Suzuki and Räsänen.

Claims 5 and 7 depend from claim 1 and are patentable over the cited combination for all the reasons argued above in support of claim 1.

6. Claims 13, 14, 16, and 17 are patentable over the combination of Snowden and Suzuki.

Claims 13 and 14 depend from claim 12. As mentioned above, Snowden fails to disclose or suggest exchanging a plurality of data units between the network element and the mobile terminal, wherein at least one data unit includes a status bit that indicates whether flow control in transmitting data terminal equipment is active or inactive. Snowden also fails to disclose or suggest requesting a change in a data rate used to exchange the plurality of data units. Suzuki has no disclosure related to these features and therefore the combination of Snowden and Suzuki fails to render claims 13 and 14 unpatentable.

Claims 16 and 17 depend from claim 15. As mentioned above, Suzuki fails to disclose or suggest circuitry for providing at least one data unit that includes a status bit indicating that flow control in transmitting data terminal equipment is active or inactive. Suzuki also fails to disclose or suggest circuitry for requesting a change in a data rate used to exchange the plurality of data units. Snowden fails to supply these features

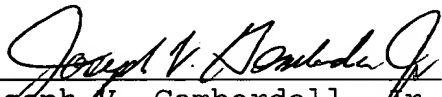
and therefore the combination of Snowden and Suzuki fails to render claims 16 and 17 unpatentable.

At least for these reasons, claims 13, 14, 16, and 17 are patentable over the combination of Snowden and Suzuki.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

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Respectfully submitted,

  
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